North Carolina Department of Transportation
Division of Highways
Traffic Engineering and Safety Systems Branch

STANDARD PRACTICE
For
Crosswalks – Mid-Block (Unsignalized) Signing

A Mid-Block Crosswalk shall be defined as any crosswalk that is not located within an intersection. It will be the standard practice of NCDOT to install Mid-Block Crosswalks based on an engineering study. All Mid-Block Crosswalks shall be signed and marked in compliance with the Manual on Uniform Traffic Control Devices (MUTCD), the North Carolina Supplement to the MUTCD, the current NCDOT Roadway Standard Drawings, and the standards herein.

CRITERIA

For Unsignalized Mid-Block Crosswalks

- Installation of a Mid-Block Crosswalk shall be made only after an NCDOT engineering study determines that other alternative traffic control measures are not justified and that a Mid-Block Crosswalk can enhance transportation operation and pedestrian safety.

- Unless otherwise determined on the basis of the engineering study, Mid-Block Crosswalks should not be installed on roadways with a speed limit greater than 35 MPH.

- Mid-Block Crosswalks should not be located within 300 feet of a non-signalized intersection and 400 feet of a signalized intersection, as to not interfere with the functionality of the intersection.

- On street parking spaces should be eliminated adjacent to each Mid-Block Crosswalk to allow adequate visibility for motorists approaching and/or departing the crosswalk. Parking removal should include no less than 50 feet on each curbside approach lane to the Mid-Block Crosswalk and no less than 25 feet on each curbside exiting lane leaving the Mid-Block Crosswalk. If sidewalk bulb-outs are constructed in the parking lane, removal of on street parking may not be necessary.

- Installations of refuge or safety islands should be installed for Mid-Block Crosswalks on multi-lane roadways if sufficient roadway width is available.

- Mid-Block Crosswalks should not be installed on streets with an ADT volume exceeding 12,000 vehicles per day. If a raised pedestrian refuge median is provided the ADT should not exceed 15,000 vehicles per day.

- A minimum pedestrian crossing volume of 25 pedestrians per hour for at least four hours of a typical day should be met in order to warrant a Mid-Block Crosswalk.

- In-street signing should only be used if deemed adequate by an engineering study. If the in-street signs (R1-6, R1-6a) are used, the supports shall be constructed of a breakaway material as to reduce harm to the vehicle and the pedestrian. In-street signs shall be constructed of a non-metal material as to also reduce harm to the vehicle and the pedestrian.

RECOMMENDATIONS

- Unsignalized Mid-Block Crosswalks should not be provided on streets where traffic volumes do not have gaps in the traffic stream long enough for a pedestrian to walk to the other side or to a median refuge. At locations with inadequate gaps that also meet MUTCD signalization warrants, consider a signalized Mid-Block Crosswalk. Also consider a signalized Mid-Block Crosswalk when the average wait time for pedestrians to cross is more than 60 seconds.

- On streets with continuous two-way left-turn lanes, provide a raised median pedestrian refuge with a minimum refuge length of 20 feet and a minimum width of 6 feet.

- Provide raised median pedestrian refuge at Mid-Block Crosswalks where the total crossing width is greater than 60 feet.

- Use high-visibility (ladder-style) crosswalk markings to increase visibility longitudinally.

- Provide advance stop or yield lines to reduce multiple threat collisions.

- Provide advanced crosswalk warning signs for vehicle traffic.

- Use curb extensions (see Figure 1) to increase the visibility of the driver and the pedestrian.

- "Z" crossing configurations should be used for Mid-Block Crosswalks with medians wherever possible (see Figure 1). Provide an at-grade channel in median at a 45-degree angle toward advancing traffic to encourage pedestrians to look for oncoming traffic.

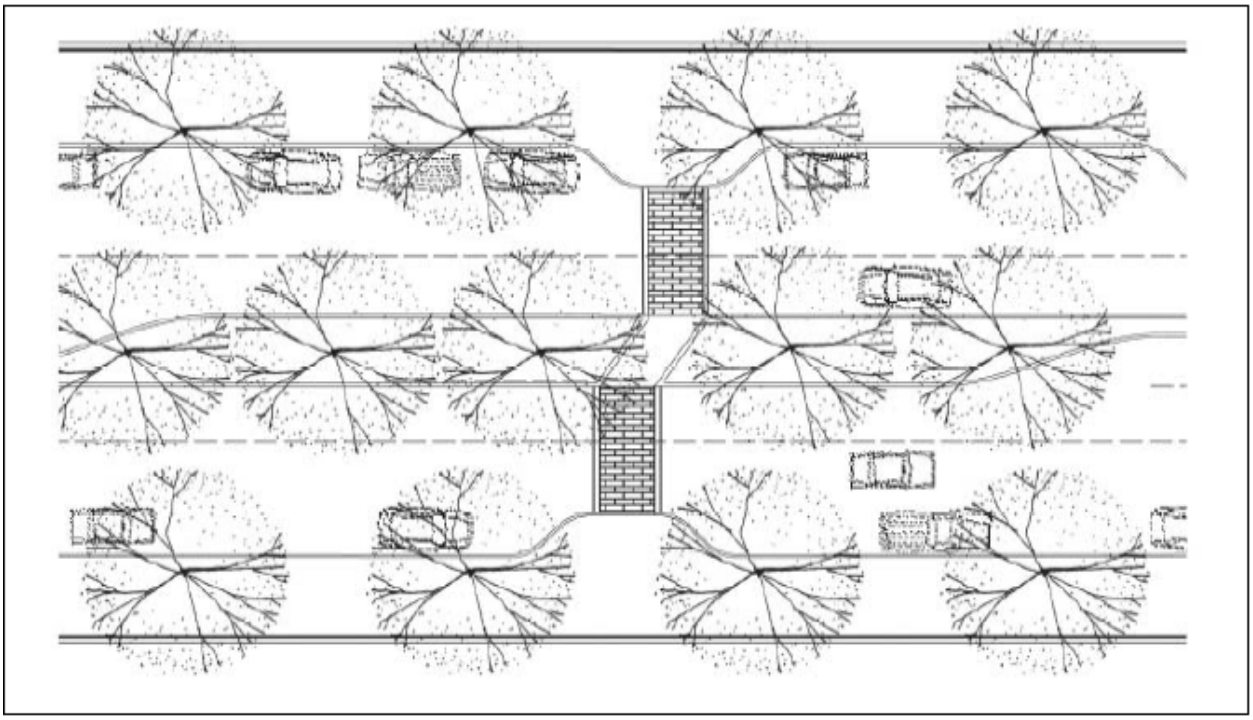

Figure 1 - This figure shows the use of the "Z" crossing configuration as well as curb extensions. Source: Community, Design + Architecture.

Adapted from the ITE Proposed Recommended Practice for Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities.

§ 20-155. Right-of-way.

§ 20-155. (c) The driver of any vehicle upon a highway within a business or residence district shall yield the right-of-way to a pedestrian crossing such highway within any clearly marked crosswalk, or any regular pedestrian crossing included in the prolongation of the lateral boundary lines of the adjacent sidewalk at the end of a block, except at intersections where the movement of traffic is being regulated by traffic officers or traffic direction devices. (d) The driver of any vehicle approaching but not having entered a traffic circle shall yield the right-of-way to a vehicle already within such traffic circle. (1937, c. 407, s. 117; 1949, c. 1016, s. 2; 1955, c. 913, ss. 6, 7; 1967, c. 1053; 1973, c. 1330, s. 20)

§ 20-173. Pedestrians' Rights and Duties.

§ 20-173. Pedestrians' right-of-way at crosswalks. (a)Where traffic-control signals are not in place or in operation the driver of a vehicle shall yield the right-of-way, slowing down or stopping if need be to so yield, to a pedestrian crossing the roadway within any marked crosswalk or within any unmarked crosswalk at or near an intersection, except as otherwise provided in Part 11 of this Article. (b) Whenever any vehicle is stopped at a marked crosswalk or at any unmarked crosswalk at an intersection to permit a pedestrian to cross the roadway, the driver of any other vehicle approaching from the rear shall not overtake and pass such stopped vehicle. (c) The driver of a vehicle emerging from or entering an alley, building entrance, private road, or driveway shall yield the right-of-way to any pedestrian, or person riding a bicycle, approaching on any sidewalk or walkway extending across such alley, building entrance, road, or driveway. (1937, c. 407, s. 134; 1973, c. 1330, s. 32.)